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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/625,612

07/24/2003

Woo-Yong Park

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09/15/2004

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EXAMINER

BRASE, SANDRA L

ART UNIT

PAPER NUMBER

2852

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,612

Applicant(s)

PARK, WOO-YONG

Examiner

Sandra L. Brase

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,9,10 and 15-18 is/are rejected.
- 7) ☒ Claim(s) 3-8,11-14 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the impeller (claim 10) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Objections

2. Claims 1-17 are objected to because of the following informalities. Appropriate correction is required.

On lines 5, 11 and 15 of claim 1, “first developing restricting member” should be changed to “developing restricting member”.

On line 3 of claim 2, “first developing restricting member” should be changed to “developing restricting member”.

On line 1 of claim 3, after “claim 2”, the phrase “wherein the developing restricting member is a first developing restricting member” should be inserted.

On line 1 of claim 15, “the porous member” should be changed to “a porous member”.

On lines 3, 6-7, 11 and 13 of claim 16, “transfer body” should be changed to “developer transfer body” so as to correspond more to the language used in the specification.

On lines 3 and 8 of claim 17, “transfer body” should be changed to “developer transfer body” so as to correspond more to the language used in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeuchi et al. (US 6,108, 508).

5. Takeuchi et al. (...508) discloses a wet electrophotographic printer, comprising: a photosensitive body (1) to form a latent image; a developer transfer body (32), in the form of a roller, rotating to face the photosensitive body to transfer a liquid developer to the photosensitive body to form a visible image according to the latent image; a developing restricting member (34) disposed with respect to the developer transfer body to restrict an amount of toner particles of the liquid developer supplied to the developer transfer body (col. 9, lines 12-19), where the developing restricting member functions as a metering roller, and supply the amount of toner particles into a nip between the developer transfer body and the photosensitive body (figures 6 and 8); a housing divided into a developing chamber and a developer storing chamber by a partition (39) and containing the developer transfer body (32) and the developing restricting member (34) (figures 6 and 8); and a developer supply unit (37) disposed below the partition in the housing to supply the liquid developer from the developer storing chamber into the developing chamber; wherein the developer transfer body (32) and the developing restricting

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member (34) are disposed to form a border between an upper portion of the developing chamber and an upper portion of the developing storing chamber together with an upper portion of the partition, where the developing restricting member and the developer transfer body extend a boarder between the developer storing chamber and the developing chamber to the photosensitive member (figures 6 and 8). The upper portion of the developing chamber communicates with an inlet of a second nip between the developer transfer body and the developing density restricting member to supply the liquid developer into the second nip therebetween (figures 6 and 8). The lower portion of the housing has a shape for which a bottom converges toward the supply unit positioned below the partition so as to prevent a stagnation of the liquid developer (figures 6 and 8).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al. (US 6,108,508) in view of Watanabe (US 6,035,165).

8. Takeuchi et al. (...508) disclose the features mentioned previously, but do not disclose a porous sponge as a supply member. Watanabe (...165) disclose a supply roller (4) in the form of a porous sponge (col. 6, lines 7-10). It would have been obvious to one of ordinary skill in the

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art at the time of the invention to have the supply unit comprise the claimed porous sponge member, as disclosed by Watanabe (...165), since it is well known in the art to have such a porous sponge member to supply liquid developer.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al. (US 6,108,508) in view of Imamiya et al. (US 6,385,421).

10. Takeuchi et al. (...508) disclose the features mentioned previously, but do not disclose the supply unit including an impeller. Imamiya et al. (...421) disclose a developer supply unit comprising an impeller (85) (col. 6, lines 27-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the supply unit include an impeller, as disclosed by Imamiya et al. (...421) since it is well known in the art that an impeller is used in a supply unit to stir and supply liquid developer.

Allowable Subject Matter

11. Claims 3-8, 11-14 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Iino et al. (US 5,561,264), Yoshino et al. (US 6,038,421), Yamaguchi et al. (US 6,353,721), Obu et al. (US 6,405,008), Itaya et al. (US 6,466,757) and Yoshino (US 6,636,716) disclose a liquid developing device.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is (571) 272-2131. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley, can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sandra L. Brase
Primary Examiner
Art Unit 2852

September 13, 2004